



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/540,535

06/24/2005

Satoru Mima

124486

3552

25944

7590

02/22/2007

OLIFF & BERRIDGE, PLC

P.O. BOX 19928

ALEXANDRIA, VA 22320

EXAMINER

CINTINS, IVARS C

ART UNIT

PAPER NUMBER

1724

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

02/22/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/540,535	<b>Applicant(s)</b> MIMA ET AL.	
	<b>Examiner</b> Ivars C. Cintins	<b>Art Unit</b> 1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 are again rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10-309567 in view of Hatano et al. (U.S. Patent No. 6,602,816; hereinafter "Hatano"), further in view of Allen et al. (U.S. Patent No. 5,268,106; hereinafter "Allen"). As pointed out in the previous Office action, JP 10-309567 discloses purifying water by adding activated carbon having the recited particle size to this water, and subjecting the thus treated water to membrane separation. Accordingly, this primary reference discloses the claimed invention with the exception of the recited *in situ* milling of activated carbon by wet milling. Hatano discloses that it is known to adjust the particle size of an adsorbent material (clay) to the recited value (see col. 7, line 66) by wet milling (see col. 8, lines 9-12). It would have been obvious to one of ordinary skill in the art at the time the invention was made to produce the activated carbon of the primary reference by wet milling, as suggested by Hatano, since this secondary reference discloses producing an adsorbent material having the recited particle size in this manner. Also, Allen teaches producing a sorbent material at the site where it is intended to be used; and it would have been obvious to one of ordinary skill in the art at the time the invention was made to mill the activated carbon of the modified primary reference *in situ*, as suggested by Allen, in order to eliminate any costs associated with milling this activated carbon at a remote location.

Applicant's arguments filed November 24, 2006 have been noted and carefully considered but are not deemed to be persuasive of patentability. Applicant points out that "[w]hile Kurita [JP 10-309567] and Hatano may teach the use of activated carbon in water treatment plants, and may teach activated carbon of the recited particle size, the references do not teach or suggest that the activated carbon is milled *in situ* at the water treatment plant." Applicant further points out that Allen does not teach or suggest any use of activated carbon for purifying water to be treated, and does not teach or suggest milling activated carbon. Applicant then argues that it is improper to combine Allen with Kurita and Hatano because Allen is directed to non-analogous art. This argument is not deemed to be well founded. Allen clearly discloses that it is known to produce a sorbent material at the site at which it is intended to be used; and given this teaching, one of ordinary skill in the liquid purification art would have been motivated to produce (i.e. mill) the activated carbon of Kurita modified by Hatano at the water treatment plant at which it is to be used (i.e. *in situ*). The fact that Allen doesn't use activated carbon is not deemed to be significant, since one skilled in the liquid purification art would readily recognize that the teachings of this reference could be applied to adsorbent materials in general. Furthermore, this skilled artisan would also recognize that the activated carbon of Kurita could either be milled at a remote location and then shipped to the water treatment plant, or milled directly at the treatment plant, depending on whether paying milling costs or buying milling equipment would be more economical or desirable in the long run. Applicant should note that some coffee drinkers purchase pre-ground coffee

Art Unit: 1724

beans for use in coffee makers, while others purchase whole coffee beans and then grind them at home (i.e. *in situ*).

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to I. Cintins whose telephone number is 571-272-1155. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Duane Smith, can be reached at 571-272-1166.

The centralized facsimile number for the USPTO is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 1724

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**Ivars C. Cintins**  
**Primary Examiner**  
**Art Unit 1724**

I. Cintins  
February 18, 2007